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PROBLEMS IN MODERN GREEK LEXICOGRAPHY.

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PROBLEMS DEALING WITH LEVELS OF SPEECH AND LEVELS OF ANALYSIS IN CONNECTION WITH MODERN GREEK LEXICOGRAPHICAL STUDY WERE DISCUSSED. CONCERNING THE POSSIBLE CONSTRUCTION OF A COMPETENT BILINGUAL DICTIONARY, THE INVESTIGATORS SUGGESTED THAT THE VARIOUS STRUCTURES (NAMELY, PHONOLOGY, MORPHOLOGY, AND SYNTAX) BE TIED TOGETHER TO INVOLVE (1) LISTING IN PHONEMIC TRANSCRIPTIONS THE MORPHEMES OF A LANGUAGE, (2) LISTING UNDER EACH MORPHEME THE ALLOMORPHS WITH A BRIEF DESCRIPTION OF THEIR DISTRIBUTION AND THE MORPHEME SEQUENCES OF WHICH THE MORPHEME UNDER DISCUSSION IS A SIGNIFICANT CONSTITUENT, AND (3) LISTING UNDER EACH SEQUENCE ("WORDS") THE DISTINCTIVE FEATURES OF RELATIONSHIP WHICH ARE TYPICAL OF THEM. THIS REPORT IS ONE OF A SERIES OF 13 PAPERS PRESENTED AT A CONFERENCE ON LEXICOGRAPHY, INDIANA UNIVERSITY, NOVEMBER 11-12, 1960. (GD)

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Problems in Modern Greek Lexicography

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The U.S. Office of Education is sponsoring a Modern Greek-English Dictionary, to be published by the University of North Dakota, under the direction of Professor Demetrius Georgacas. We are consultants of the project; and various questions that have to be answered or, at least, asked at the present initial stage are closely related to the problems to be dealt with at the Indiana Conference on Lexicography. Thus, we are presenting them (on our own, to be sure, and not as spokesmen of the team) from the standpoint of this particular project in progress. On the other hand, Modern Greek is an excellent basis for a theoretical discussion of lexicographical problems. In terms of morphemics, it allows us to verify hypotheses about the present with data of the past. In terms of levels, it still preserves conditions for actual observation which in the Romance West have been gone for a long time. In terms of the corpus, it stays in the middle between the well-described and the un-

described languages, and thus offers good material for the development of scientific lexicography.

In the following brief sketch, the problems will be discussed under two main headings: 1. Levels of speech; and 2. Levels of analysis.

1. Levels of speech

1.1. Demotic vs. puristic

During the Middle Ages, a very marked linguistic dichotomy prevailed in the once Romanized areas of Western Europe: the vernaculars continuing the colloquial form of Latin were used for informal communication whereas a form of Latin that was based on ancient and early Christian models served the needs for formal expression. Since the Renaissance this contrast between levels has diminished considerably. In the Greek East, however, a linguistic situation analogous to that of the medieval West still obtains, probably for a number of cultural reasons. A marked opposition prevails between the puristic and formal levels of speech, the katharevusa (a continuation of the classical, Christian, and Byzantine written tradition) and the colloquial level, the demotic (a development of the popular usage of antiquity). This linguistic situation is an essential feature

of the social structure of Modern Greece. The two language levels have turned into symbols of political philosophies. Rightly or wrongly, the katharevusa has become the emotional bridge to the glorious past; and past is, in a school sense, antiquity; and in a national sense, Byzantium. Similarly, the demotic has become the democratic symbol. The more conservative people are, the more they adhere to the katharevusa; the more liberal, the more to the demotic. Communist propaganda uses the demotic, exploiting the fact that the demotic is the level of the masses. This is, incidentally, quite unlike the medieval ecclesiastic habit of both the Western and the Eastern Churches, which impressed the masses through the medium of the traditional level, often difficult to understand, of ecclesiastic Latin and ecclesiastic Greek, respectively.

The difference between the two levels of speech occurs on all levels of analysis. It is least marked on the phonemic level, most striking in vocabulary. It has, of course, dominated the development of Greek lexicography. In late antiquity and the Middle Ages, colloquial words were often listed in glossaries and scholia, with a prescriptive purpose, together with their respectable synonyms. A real thesaurus of the

spoken language does not yet exist in completed form. Only the first letters of the alphabet of the magnificent Historical Lexicon of Spoken Greek, in progress at the University of Athens since 1933, are available. It includes, however, dialect material and is intended for research purposes. The large modern dictionaries mix the two levels within one alphabetic arrangement. It is interesting to notice that the inclusion of demotic material starts with bilingual glossaries and vocabularies. Apparently for the foreigner puristic prescription is irrelevant but a basis of communication is necessary. A typical early example is a Hebrew-Greek Glossary of about the sixth century (Festschrift Harkavy, Petersburg, 1908, 68-96). In more recent times, from about the seventeenth century on, the bilingual dictionaries are about the best collections of demotic material. Among them just a few may be mentioned: 1709, Somavera (Greek-Italian), 1882, Legrand (Greek-French), 1952, Missir (French-Greek) and, an interesting experiment based solely on fieldwork, 1959, Swanson (English-Greek and Greek-English).

But 'katharevusa' is an ambiguous concept. So far it has been used here as the designation of a language level, used in scientific writing, in legal procedure,

in political articles of the newspapers, and contrasting with the informal level of daily communication and of fiction. On the other hand, the term 'katharevusa' refers to the form of a word, indicating that it shows certain phonemic or morphemic features, classic or Byzantine, which the words of the demotic do not preserve. These katharevusa words are comparable to what Romance etymologists call Latinisms, i.e., words not (or only partially) participating in the changes of the phonemic and morphemic systems, or newly coined, with slight demotic retouches, by means of such conservative morphemes. But the form of the word is not necessarily correlated with the level on which it is used. Just as in Romance many Latinisms are used in every day speech, so words of the katharevusa form may be used on the demotic level. The very fact that they may partake on either level, katharevusa or demotic, makes a clearcut division between the two levels difficult. A few examples, representing various patterns of katharevusa words in the demotic, may illustrate the predicament of the lexicographer who wants to compile the corpus of the present-day demotic.

In the nineteenth and well into the twentieth

century the postoffice was expressed in Greek by the Italianism pósta. This was superseded in the period of modern administration by the katharevusa term, based on ancient material, taxudromefo ("courier-office"). It is general and would have to appear in the demotic glossary. Second example: the refrigerator, an institution vital mostly to Americans living in Greece, is called psugefo, also a katharevusa term. Along with many other terms of American gracious living it is certainly not generally used in Greece. Nevertheless, Messing (Lg. 36.144) suggests its inclusion in a demotic list. A third pattern is represented by numerous katharevusa morphemes which are, for a number of reasons (Caratzas, Glotta 36.206), preferred to their demotic allomorphs: with the names of various professions, e.g., the puristic plural in -és is used rather than the demotic plural in -ádes (mathētés 'students' instead of mathētádes). Should these katharevusa morphemes be used instead of or together with their demotic allomorphs or not at all? A fourth pattern is exemplified by two designations of the 'house': in advertising and on labels you read in many places the ancient oikía, but you pronounce it spíti, the common colloquial designation. Here the contrast between the katharevusa and the

demotic term is more or less equivalent to that between passive and active elements of the vocabulary. Should the passive elements of the language be included in or excluded from a demotic glossary?

1.2. Colloquial vs. literary.

A second dichotomy of levels is that of colloquial vs. literary demotic. Fiction (as distinct from non-fiction) represents the written tradition of the demotic. On the one hand it is a source for demotic material; on the other, it is written, not spoken. There have been groups of writers, once nicknamed 'the long-haired', who introduced a certain radicalism into the demotic. Some of the vocabulary of literature is about as distant from actual use as that of the purists. Just as many puristic forms are used commonly in every day speech, so, in reverse, many demotic forms may not be used at all. Some of the galano- 'blue' compounds, merely literary coinages, may serve as an illustration (Hist. Lex., s.vv.):

galanóbathos 'blue and deep'

galanoloúloudo 'blue flower'

galanómauros 'dark blue'

galanóxanthos 'blue with a golden gleam'

galanophrúd[illegible] 'with blue eyes'

galanófteros 'with blue wings'

galanófullos 'with blue leaves'

galanófōtos 'radiating blue'

galanokhrusōménos 'goldenblue'

Here, then, without the regulating and authoritarian bodies as we know them from the Western Academies, we come again to the age-old question about the source material of lexicography. Can literature serve as a source at all; and if so, must a body of authorities be defined whose usage is to be recognized as standard? The answer of present-day applied linguistics is (at least theoretically) in the negative. But, on the other hand, in view of the limited lexicographical material available in modern Greece, Greek literature has to be used (in contrast to that of various other languages) not as a preceptor but rather as an informant, who, to be sure, as far as frequency is concerned, is right only part of the time. Literature, in other words, may be used as a visual informant to be checked by means of an audible one.

The use of written material brings up the question of the usefulness of frequency lists and their transfer to other languages. To work with frequency lists of the language under discussion is at present out

of the question, since there are none in existence and their production would require time, means, and effort often not available. The Thorndike list is only of reduced value outside of English, not so much because of the difference in material culture which could easily be taken account of, but because it is, to a great extent, based on English literature, whereas our target is neither English nor literature. It can not be more than a stimulus and a starting point for an intelligent transfer to be made by someone or some team familiar with both cultures and languages. As an illustration of cultural differences, we may note that in Greek the terminology of opinion, impression, and sensation, with numerous shades and synonyms, is of the greatest frequency, and a realistic dictionary would have to register it carefully.

Here, then, the following questions remain. Is fiction a realistic basis for a description of the frequent and typical patterns of the spoken language? If so, on which basis should the literary samples be selected? Is this a return to the seventeenth century principle of the authorities? Is reading, in addition to speaking, an aim in itself to be included in the type of dictionary under discussion?

1.3. Standard vs. dialect.

It is customary to consider the well-educated Athenian as the speaker of Standard Greek. This is, incidentally, not a tradition stemming from antiquity but a recent one. In antiquity the dialect of Attica evolves as the basis of the Koiné, i.e., Standard Hellenistic Greek; in recent modern history (and in the twentieth more than in the nineteenth century) the new capital of the young state, arbitrarily chosen and not more than an insignificant country town with a brilliant name as its main asset, attracted large masses of population, coming from all parts of the country, swelling the population of the city to a million inhabitants. The Peloponnesian dialect becomes, in certain ways, the nucleus of the new Athenian standard (Caratzas, Glotta, 36.201). To the lexicographer, this situation means various things.

It establishes an intersection of two dichotomies: the area of the standard form of speech (as distinct from non-standard) overlaps the area of urban vocabulary (as distinct from provincial). This leads to an interesting pattern of evaluation: since urban is equated with standard, non-urban or 'dialect' is often equated with substandard. In a study dealing with the

treatment of speech levels in a recently published Greek glossary, 131 forms are rejected for various reasons; thirteen (or a tenth) of them because they are considered both dialectal and substandard. How far can and how far should this kind of selection be carried? Of course, one of the reasons for the system of lexical evaluation lies in the fact that in Greece the development of mass communications has not been as extensive as it has been in some other cultures. Therefore, the cultural and with it the linguistic contrast between urban and provincial (i.e., both rural and small town) communities is still very strong. We wonder how relevant the rural terminology is for a dictionary of about forty thousand entries.

But 'Standard' may also appear in a purely regional contrast. Lexical variants in the designation of one sememe which are found in the provinces may still be used on the same social and educational level as their Athenian equivalent and therefore belong in a glossary of standard Greek. It is the well-known phenomenon treated at length by Kretschmer in his Wortgeographie der hochdeutschen Umgangssprache (Göttingen, 1918). His informants shared social status but differed as to regional provenience. This is a very common phenomenon in Greek (as in many other languages); and it

is, indeed, questionable whether the Athenian should be allowed (and if so to what extent) to outweigh the others. One possible lexicographical criterion in this context is that a term that is known to and used by all should in a limited dictionary have the preference over a synonym used only by part of the speakers.

Standardization may be achieved by accepting one dialect as the 'correct' form to which all material is to be adapted. The Greek dialects of the North, with many speakers, have a certain system of unstressed vowels that (grosso modo) can be stated as follows: where the Southern dialects use e and o, the North uses i and u; and where the Southern dialects use i and u, the North uses zero. Assuming that the fieldworker hears in Macedonia or Thrace [pidhák] 'little child' he will have to standardize it to paidáki [pedháki]. The following is a typically Greek phenomenon involving consonant clusters, which raises again the question of standardization through consistency. The cluster syllable-final-nasal-plus-a-following-stop appears in two variants: many speakers pronounce the nasal and many others do not; e.g., one hears both pronunciations for 'man': [ándras] and [ádras]. Since both pronunciations are common, the lexicographer has various courses: he can list what he has heard (Gilliéron's credo), or he can

standardize in either of the two directions. A case in point is Swanson's rendering of the negative particle μή as [mi] or [min] in the same environment. He worked with informants and did not hesitate to register what he had heard. If the lexicographer is a fieldworker, consistency is not a necessary virtue; and realism stands higher than consistency. If the lexicographer is an editor, things may be the other way around. The weaker the tradition in the lexicography of a given language, the greater the problem of standardization and consistency.

1.4. Traditionalism vs. fieldwork.

A team of scholars charged with the collection of the corpus for a Modern Greek-English dictionary is in a middle position on the continuum between the two poles of traditionalism (in this context defined as reliance on written material, mostly existing glossaries) and fieldwork (i.e., the gathering of the material directly from the speaker). But the half dozen or so large dictionaries that could well serve as a starting point would have to be shortened, modified, and enlarged. On the whole, the Modern Greek dictionary requires a skillful combination of traditionalism and fieldwork (since it is to be completed in a reasonable amount of time and can therefore not be based on fieldwork exclusively).

This kind of fieldwork based on existing materials will have to clear up the following points: (1) Which of the demotic words found in available dictionaries are actually used? (2) Which of the katharevusa words have become part of the demotic? (3) Which is the most common allomorph of a morpheme in use?

It may be necessary to work through a team, rather than have things decided by one man. The elusiveness of the concept of commonness is demonstrated by the Historical Lexicon which distinguishes, on the basis of discussion and consultation, among such ill-defined distinctions as: 'used in many places'; 'usual'; 'common'. Of course, the demotic lexicographers disagree among themselves about the commonness of a given word. Koukoules compiled a list of 56 words, common in his opinion, which had been omitted in a certain glossary; of these, Georgacas recognizes only 33 as common; and Papadopoulos listed some 150 words as missing in the same work, not all of which are admitted by Georgacas (Glotta 51.49). The members of the team should at least represent the main dialect areas: Athens, the North, and the South. They would function at the same time as fieldworkers and informants. In cases of doubt, other informants should be used. These should be, unless certain special

terminologies are asked for, well-educated; for well-educated informants are usually better informants than less-well-educated, particularly in a country such as Greece with its burdensome dichotomy between demotic and katharevusa. The speakers with only some passive or no knowledge of the katharevusa grow up with the oppressive knowledge that there is somewhere a 'good' and 'beautiful' language which is unreachable to them. This makes them unsure of their own level of speech and confuses them. Here is one obvious limit to the belief in the native speaker's correctness. But the main reason that makes a democratic team (as contrasted to an authoritarian organization) almost mandatory is not so much the equal representation of dialect areas as the mutual education to tolerance. The Linguistic Society's principle of respect (voluntary or enforced) for everybody's 'dialect' is still not practiced in many parts of the world, particularly where speech forms have become a basis for class distinctions. Often, to be sure, this boils down to the simple fact that somebody else's way of saying something is considered a bad way of saying it, just because it is different from yours. One of us knows from his own background as a native speaker of German, how easily irritated he became not only by vocabulary differences but also

by differences in vowel quality used in the dialects of other speakers.

2. Levels of analysis.

2.1. Phonemics.

It is a question whether the dictionary should use a broad or a narrow transcription. Although (according to a remark by Navarro Tomás) incorrect allophones of a foreign speaker irritate the native more than incorrect phonemes, there are still, in a glossary not intended for linguists exclusively, various factors which militate against an allophonic transcription.

There exists a considerable amount of allophonic variation, a complete marking of which would be cumbersome. A selection would be arbitrary. The following illustrations represent some of the possible patterns. (1) Before voiced consonants a sibilant is voiced: [kóstas] 'endearing for Constantinus' vs. [kózmos] 'world'. This can still safely be transcribed since in certain distributions /s/ and /z/ are phonemes (e.g., sónei [sóni] 'it's enough' vs. zóne [zóni] 'belt'). (2) The voiceless fricative appears as palatal before frontvowels (ékhei 'he has', with kh = Ger. ich sound) but velar before backvowels (ékhō 'I have', with kh = Ger. ach sound). (3) Many speakers in many areas in varying degrees

palatalize such consonants as n, l, k before frontvowels but pronounce the same phonemes before backvowels without palatalization ([ñífi] 'bride' vs. [náftis] 'sailor'). (4) Vowel quantity is not phonemic in Modern Greek as it was in the ancient language; quantity in Modern Greek is allophonic, determined by the accentual environment: stress lengthens (Pernot, Etudes 1.49).

And, perhaps, this: an allophonic transcription of the target language intended to be an aid for pronunciation tells you only half the story; it presents the do's, not the dont's. An English native speaker studying Greek would consistently also have to be reminded that voiceless stOps in certain distributions are not aspirated or long vowels not followed by some glide. Just as these non-distinctive features of the user's native language (the allophones to be gotten rid of) are not marked and still have to be remembered once and for all, so the learner will have to remember once and for all the non-distinctive features of the target language (the allophones to be acquired).

Closely related to the question of transcription is the problem of transliteration. Modern Greece still uses the ancient alphabet. This alphabet could be given up completely, and replaced by transliteration. This is

now the case in many (but by no means all) learned journals outside of Greece. It would be by far the most simple and most practical solution. But Greeks and Hellenists resist this. In Greece the alphabet in all its Alexandrinian splendor has remained a national symbol for centuries. Even the accent system, now obviously obsolete, is kept. If the Greek alphabet is used, again various ways are open, which would also have to be considered if transliteration, as distinguished from transcription, is adopted. One can stick to the traditional system, still widely used; one can go to a radically reformed system; one can steer a middle course, which throws off the most cumbersome ballast, but keeps etymological spelling reflecting the ancient background. This last is like the one used and propagated by the late Triandaphyllides, who has done more than anybody else for the instruction of Greek children in a modernized and reasonable way. How important these questions of spelling are in a culture in which the alphabet plays a highly symbolic rôle, is shown by the recent struggle of the accents in which the fighter against the accents, an internationally respected scholar, found himself in the hottest possible political water.

b. Morphemics.

Perhaps, the morphemic arrangement can be simplified. Dictionaries often tear apart what should be kept together. In our alphabetized dictionaries all prefixed and many suffixed derivatives are separated from the entry of their stem, so that the user loses the chance to grasp with a quick glance the combinatory potentialities of the given stem. The same is true of many allomorphs (think, e.g., of Eng. duke and duchess). There are certain attempts to remedy this situation. Such etymological dictionaries as the ones by Wartburg and Corominas group together what belongs together. Although a few descriptive modern dictionaries list suffixal derivatives with the base form, the rigid method followed by the etymological dictionaries should be transferred (supplemented by an Index of crossreferences) on a large scale to the descriptive ones. It is, of course, easier to suggest this than to do it.

The difficulty lies in the necessity to morphemize the corpus before grouping it. The etymological dictionary procedes here solely along historical lines and is non-sensitive to the fact that two words put together for historical reasons may descriptively be 'felt' or 'non-felt' as belonging together. Thus, you find in Wartburg's FEW under the same heading pensare (among many others) such congeners as peser 'to weigh',

pesant 'heavy', penser 'to think', pensée 'pansy', and panser 'to groom a horse'. Although all of them contain historically the same morpheme, how many do so descriptively? A beginning in a limited way may prove helpful: to consider those words as congeners (i.e., as containing the same stem morpheme) where analyst and informant are unanimous. A veto will prevent the too-much-historicity of the analyst and the too-little-historicity of the informant. Let us, then, discuss one example (independent of the question whether or not all the congeners and derivatives mentioned would appear in the actual dictionary).

The morpheme to be analyzed is {mer} 'day'. It occurs in two allomorphs /mer/ and /imer/. The distribution of these allomorphs has to be described in terms of levels: /mer/ is more demotic than /imer/, although /imer/ is also used in the demotic. But in all words which are, historically speaking, of katharevusa origin, although they are common in the demotic, only the allomorph /imer/ is used: mesēméri 'noon', hēmerológio 'calendar', kathēmerinós 'daily'.

Next to the question of allomorphs is that of the range of the morpheme. Various patterns can be distinguished.

(a) Homonymous morphemes. In addition to the morpheme {mer} 'day' with the allomorphs /mer/ and /imer/, ModGreek has a morpheme {mer} 'part' and a morpheme {imer} 'tame', both used in numerous prefixal and suffixal environments. In a dictionary arranged according to morphemes both will have to be separated from {mer} 'day'. The immediate environment is not necessarily a reason for separation since two different morphemes may share it. There is an actual case of <u>anémera</u> containing both the morpheme {mer} 'day' (and translatable as 'on the same day') and the morpheme {imer} 'tame' (and translatable as 'cruelly'). And there is the potential contrast between the existing <u>apómera</u> containing the morpheme {mer} 'part' (and translatable as 'at a distance') and the possible formation <u>apómera</u> containing the morpheme {mer} 'day' (and translatable as 'from dawn on'). But the broader environment admits of hardly any doubt to the native speaker as to whether he deals with {mer} 'day' or with {mer} 'part' or with {imer} 'tame'. The combination of the broad environment with historical grammar is a specific situation in Greek. Historical grammar may be considered here a check for the development of methods of descriptive analysis, which then can be more safely applied to languages of which only the present is known.

(b) Unrecognizability. The question arises whether a morpheme that only the etymologist recognizes should still be listed under the morpheme to which it belongs historically, or whether it should be separated from it. A set of derivatives of {mer} 'day' represents a point in case. The derivative holēmerís 'the whole day' is still analyzable as consisting of /ol/ 'whole' and /imera/ 'day', followed by an ending. But the derivative lēméri 'den' (a noun based on the intervening verb lēmeriázō, which in turn is formed on /olimer/) is hardly recognizable anymore. The intervening use 'place where you hide yourself the whole day' is apparently lost. In other words, historically lēméri contains the morpheme {mer} 'day', but does it descriptively?

(c) The place of blendings. Andriotes (Etumologikò lexikó 141) lists a term meroménia 'the first fifteen days of August', which he derives from nerâ ménia 'angry waters'. The question: is mero (which has obviously blended with {mer} 'day') here still neró 'water', i.e., an allomorph /mer/ of {ner} used in the environment of -ménia? Or has it undergone a morphemic change from {ner} 'water' to {mer} 'day'? Where, then, is the place in a morphemic dictionary of the many morphs which either belong to two morphemes or have undergone a change in form

from one to the other?

(d) Distant cognates. Where is the borderline that divides morphemic kinfolk? In ModGreek, the general term for 'today' is sémera. It continues AncGrk. sémeron. In the ancient language, this was a compound containing hēméra 'day' preceded by some pronominal element. Question: should the term be listed under the morpheme {mer}? The accent and the fact that it would create a morpheme {*s} occurring in unique distribution, militate against an isolation of {mer}.

c. Syntax.

The problem of the arrangement of the material within one lemma is an old and thorny question in lexicography. The semantic grouping, although still widely practiced, gives way slowly to other modes of classification. I should like to illustrate some of these briefly by examples taken from a large scale publication in progress, the Lexikon des frühgriechischen Epos, undertaken in Germany by the Thesaurus linguae graecae. The Lexikon, interestingly enough and in a most unAmerican way, allows each contributor to be his own editor. Thus, the section B of each lemma, devoted to an analysis of the Bedeutung, is handled in various ways by the various contributors.

(1) The semantic approach attempting to classify the material according to shades of meaning is exemplified by the adjective ákritos arranged in three groups:

1. 'confused, thoughtless':
2. 'unsolvable, endless':
3. 'undecided'.

(2) The mixed approach of semantic shades connected with and, at least partly, derived from grammatical environment may be illustrated by the arrangement of the material of alapázō:

1. a. 'to empty' (tí tinos 'something of something')
   b. same, with omission of both objects
2. 'to depopulate (a city), to destroy'
3. 'to expel' (ti ék tinos 'something from something')
4. with personal object, 'to kill'

(3) In certain contributions the Lexikon attempts a description of meaning essentially in terms of the immediate morphemic environment of the verbstem (i.e., the inflectional endings of tense, mood, finiteness/non-finiteness, as well as prefixes). The relational environment is placed (if listed at all) at the bottom of the hierarchy of arrangement. A typical example is the analysis of aláomai 'to wander, to roam', by Iripoin. His

scheme:

I. middle voice
  1. theme of the present
    a. participle
      α. without complement
        αα. with a verb that has the same subject
        ββ. with a verb that has a different subject
      β. with complement
    b. indicative
      α. present
      β. imperfect
    c. imperative
  2. future
  3. aorist (intrans., with compl.)
    a. indicative
    b. subjunctive
    c. participle
  4. perfect
    a. indicative
    b. imperative
    c. infinitive
    d. participle
II. with preverbs

(4) Finally, opposed to this system which describes

meaning in terms of immediate environment, the Lexikon contains several stimulating analyses by Hansjakob Seiler, in which the use of a term is described essentially by recourse to its syntactical environment. Seiler states (s.v. akoúō): "The syntactical relations (particularly to the content, the thing heard) reflect the semantic shades of akoúō. They, therefore, determine the hierarchy of our arrangement. The forms of the verb are of significance only on a lower level." As a typical example I am presenting Seiler's analysis of the (syntactical) meanings of the noun álgos 'pain',

1. as subject
   a. not with action verbs
      α. in nominal clauses
      β. with verbs of status
   b. with action verbs
2. as accusative object
   a. not with action verbs
      α. páskhō 'I suffer'
         αα. aorist (and imperfect)
         ββ. present
         γγ. participle
      β. mogéō 'I suffer'
      γ. ékhō 'I have'
         αα. participle

ββ. other moods

γ. other non-action verbs

b. with action verbs

α. dō- 'give'

β. thē- 'put'

γ. other action verbs

3. as dative object

a. not with action verbs

α. without preposition

β. with preposition

b. with action verbs

α. without preposition

β. with preposition

This interesting experiment in lexicography leads to the question as to whether and to what degree a descriptive bilingual dictionary of a modern language could be arranged in a similar way; how far, in other words, relational meaning should supplement or even replace semantic groupings and classifications based on the narrow morphemic environment. The system of syntactical relationships would have to be established in a consistent way for each of the morphemes or morpheme sequences listed. For a verb, the indications may refer to the absence or presence of an object or predicative or subject: to the

ways in which the object and the other function classes appear with this verb; to the way in which certain adverbial expressions are formed with this particular verb (as distinct from those adverbs which may accompany any verb); to whether or not it is a functionverb, i.e., combined with another verb by means of the connectives pos or na (pos roughly corresponding to Romance que plus indicative, and na to Romance que plus subjunctive). In other words, the syntax of the verb, concisely and completely presented, would be used to describe its identity.

2.4. Résumé.

In this way, then, we would try to tie together the levels of analysis; list in phonemic transcriptions the morphemes of a language; list under each morpheme the allomorphs with a brief description of their distribution, and the morpheme sequences of which the morpheme under discussion is a significant constituent; list under each of these sequences (the "words") the distinctive features of relationship which are typical of them. This arrangement would reduce the number of the lemmata considerably and familiarize the non-native, through concentration and arrangement, with the essential morphemes of the target language, their narrow and their broad environments, and, through this medium, their use and their meaning.